

AMENDMENTS TO THE CLAIMS

Please cancel claims 2, 3, 5, 7, 8, 14, and 16-20 without prejudice or disclaimer, and amend the claims as follow:

1. (Currently Amended) A semiconductor layer, comprising:
a first layer comprising a Ga_2O_3 system single crystal substrate; and
a second layer ~~obtained by replacing a part rather than all of oxygen atoms of the first layer with nitrogen atoms~~ comprising an oxidation gallium containing nitrogen.
- 2-3. (Cancelled.)
4. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer comprises Ga_2O_3 , $(\text{In}_x\text{Ga}_{1-x})_2\text{O}_3$ where $0 \leq x < 1$, $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ where $0 \leq x < 1$, $(\text{In}_x\text{Al}_y\text{Ga}_{1-x-y})_2\text{O}_3$ where $0 \leq x < 1$, $0 \leq y < 1$, and $0 \leq x + y < 1$ as a main constituent.
5. (Cancelled.)
6. (Currently Amended) A semiconductor layer, comprising:
a first layer comprising a Ga_2O_3 system semiconductor;
a second layer comprising an oxidation gallium containing nitrogen ~~a GaN system compound semiconductor and obtained by replacing a part or all of oxygen atoms of the first layer with nitrogen atoms;~~ and
a third layer comprising a GaN system epitaxial layer grown on the second layer.
- 7-8. (Cancelled.)
9. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer consists of a single crystal $\beta\text{-Ga}_2\text{O}_3$.
10. (Previously Presented) A semiconductor layer according to claim 9, wherein the single crystal $\beta\text{-Ga}_2\text{O}_3$ has a prismatic shape having a square in cross section, and its axis

direction matches a-axis $\langle 100 \rangle$ orientation, b-axis $\langle 010 \rangle$ orientation, or c-axis $\langle 001 \rangle$ orientation.

11. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer comprises $(\text{In}_x\text{Ga}_{1-x})_2\text{O}_3$ where $0 < x < 1$.

12. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer comprises $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ where $0 < x < 1$.

13. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer comprises $(\text{In}_x\text{Al}_y\text{Ga}_{1-x-y})_2\text{O}_3$ where $0 < x < 1$, $0 < y < 1$, and $0 < x + y < 1$.

14. (Cancelled.)

15. (Previously Presented) A semiconductor layer according to claim 6, wherein the first layer consists of single crystal $\beta\text{-Ga}_2\text{O}_3$.

16-20. (Cancelled.)

21. (Currently Amended) A semiconductor layer, comprising:
a first layer comprising a Ga_2O_3 system single crystal substrate; and
a second layer ~~obtained by replacing a part rather than all of oxygen atoms of the first layer with nitrogen atoms~~ comprising a Ga_2O_3 which contains nitrogen,
wherein the second layer comprises a GaN system compound semiconductor.